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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,139	04/26/2001	Hideharu Takeshima	206488US0	6553
22850	7590	04/21/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			MILLER, BRIAN E	
			ART UNIT	PAPER NUMBER
			2652	20
DATE MAILED: 04/21/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/842,139

Applicant(s)

TAKESHIMA ET AL.

Examiner

Brian E. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 17 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 17 and 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Claims 1-4, 17, 26-33 are now pending.

*After further review of the claimed subject matter and the English translation of Fujio et al, the following action from the Examiner is deemed appropriate.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pattern "dividing the print-receiving layer into more than one area by colors", as recited in claim 33, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 30 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The language of the claim does not further limit claim 1, since it is presumed that the print-receiving layer is "formed" on the medium. The word "formed" is not considered to encompass a particular process step.

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Claim Rejections - 35 USC § 112

3. Claims 2, 30-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) Claim 2 recites “the entire area of the outermost layer consists of the print-receiving layer” which language appears to be misdescriptive. If claim 1 recites that the print-receiving layer *is* the outermost layer, it is not readily apparent how it would not necessarily include the “entire layer”; (b) claim 30 recites “a print-receiving layer” and “a pattern” which language is indefinite as it is not readily apparent if the recited elements are the same or different than the “print-receiving layer” and “pattern” as recited in claim 1, since it appears to be dependent therefrom; (c) claim 33, the language “by dividing the print-receiving layer into more than one area by colors” is misdescriptive, since if the pattern is *on* the print-receiving layer, it is not readily apparent how the print-receiving layer would be divided.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 17, 26-28, 30, 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujio et al (JP 2000-57635). Fujio et al discloses an optical recording medium suitable for printing pattern characteristics including a print receiving layer (printing acceptance layer); wherein the entire area of the outermost layer consists of the print receiving layer (re claim 2-see

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paragraph [0055] wherein the print receiving layer is printable with a water base ink (re claim 3-see paragraph [0017]; wherein the mean particle diameter is 200nm or less (re claim 4-see paragraph [0020]); wherein the fine particles comprise between 30%-90% of weight of an inorganic substance (re claim 17-see paragraph [0021]. Furthermore, with respect to the pattern comprising a cation resin as well, Fujio et al discloses that due to a capillary action of the print-receiving layer, the pattern will also include some of the cation resin after drying (see [0015] lines 3-7).

With respect to claims 26-28, the recited cation resin(s) is considered to be encompassed by Fujio (see at least paragraph [0024]); (re claim 32) wherein the resin is a UV curing resin (see [0026]); (re claim 33) FIG. 1 of Fujio appears to show multiple color scheme 1, 2, for the print-receiving layer, in so far as this limitation is definite and understood.

Claim Rejections - 35 USC § 103

6. Claims 29, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujio et al. For a description of Fujio, see the rejection, supra. Fujio is expressly silent as to (a) the % of the cation resin being between 3 and 15%, and (b) the pattern including convexes and concaves, however, it is considered that both these limitations would have been obvious to a skilled artisan. With respect to (a), above, in paragraph [0028], Fujio recites that the “degree of hardness, adhesion, water resistance, moisture resistance, etc. change with the kinds and amounts of a resin,” which teaching would make it readily apparent to a skilled artisan, that changing the amount of resin, e.g., 3-15%, lacking any unobvious or unexpected results, would have resulted through routine engineering optimization and experimentation.

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Moreover, absent a showing of criticality, the relationship set forth in claim 29 is considered to be within the level of ordinary skill in the art. The law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

With respect to (b), above, while the figure in Fujio generically shows a “pattern” 3, it would have been readily apparent to a skilled artisan that *any* printable pattern would be within the knowledge of a skilled artisan, which would include both convexes and concaves. Furthermore, it has been held that a change in form/shape/size of an object, i.e., a “pattern” in this case, lacking any unobvious or unexpected results, would have been within the knowledge of a skilled artisan; see *In re Rose*, 105 USPQ 237 (CCPA 1955) and *In re Dailey*, 149 USPQ 47 (CCPA 1976), regarding these matters.

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Response to Amendment

Although applicant had fully responded to the previous action, the Examiner's further review of the claims and the English translation of Fujio et al has prompted this subsequent non-final Office Action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (703) 308-2850. The examiner can normally be reached on M-TH 7:15am-4:45pm (and every other friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Brian E. Miller
Primary Examiner
Art Unit 2652**

Bem
April 16, 2004